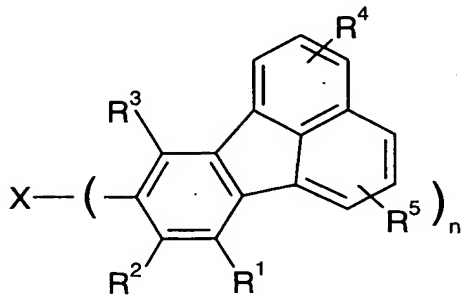
Abstract

Fluoranthene derivatives of the general formula I



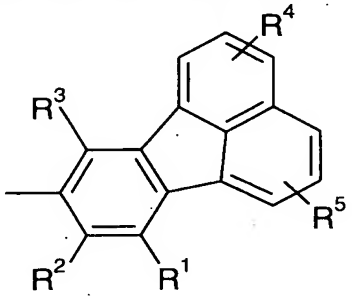
(I)

where the symbols have the following meanings:

R^1, R^2, R^3, R^4, R^5 are each hydrogen, alkyl, an aromatic radical, a fused aromatic ring system, a heteroaromatic radical or $-CH=CH_2$, (E)- or (Z)-$CH=CH-C_6H_5$, acryloyl, methacryloyl, methylstyryl, $-O-CH=CH_2$ or glycidyl;

where at least one of the radicals R^1, R^2 and/or R^3 is not hydrogen;

X is an alkyl radical, an aromatic radical, a fused aromatic ring system, a heteroaromatic radical or a radical of the formula (I')



(I')

or an oligophenyl group;

n is from 1 to 10 or, in the case of X = oligophenyl group, 1-20;

with the proviso that R^1, R^2, R^3 and X are not at the same time phenyl when R^4 and R^5 are hydrogen. Furthermore, the invention relates to a process for preparing them and the use of fluoranthene derivatives as emitter molecule in organic light-emitting diodes (OLEDs), a light-emitting layer comprising the fluoranthene derivatives of the invention as emitter molecules, an OLED comprising the light-emitting layer of the invention and devices comprising the OLED of the invention.